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AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Currently Amended):   A method comprising:

monitoring an output of a sensor, the output of the sensor reflecting a physiological parameter of a patient;

initially defining an event based on the monitoring of the sensor output, wherein initially defining the event comprises storing an indication of the monitored sensor output within a memory as the defined event;

monitoring therapy delivered by a medical device during occurrence of the defined event;

generating therapy information based on the monitoring of the therapy;

associating the therapy information with the defined event within the memory;

subsequently detecting the defined event by monitoring the output of the sensor and comparing the sensor output to the defined event; and

automatically providing therapy to the patient via the medical device according to the therapy information associated with the defined event in response to the detection.

Claims 2-4 (Cancelled).

Claim 5 (Previously Presented):   The method of claim 1, wherein the sensor comprises an accelerometer.

Claim 6 (Previously Presented):   The method of claim 1, wherein the sensor output reflects at least one of motion or posture of the patient.

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Claim 7 (Previously Presented):   The method of claim 1, wherein defining the event based on the monitoring of the sensor output comprises recording the sensor output over a period of time.

Claim 8 (Previously Presented):   The method of claim 1, wherein generating therapy information comprises recording a value of a therapy parameter that controls delivery of therapy by the medical device.

Claim 9 (Previously Presented):   The method of claim 8, wherein recording the value of the therapy parameter comprises recording a change to the therapy parameter made by the user.

Claim 10 (Previously Presented):   The method of claim 9, wherein recording a change to the therapy parameter comprises recording changes to the therapy parameter made by the user over a period of time.

Claim 11 (Original): The method of claim 10, wherein providing therapy to a patient according to the therapy information comprises changing the therapy parameter at a time subsequent to detection of the event according to the recorded changes to the therapy parameter.

Claim 12 (Previously Presented):   The method of claim 9, wherein the medical device includes an implantable medical device, and recording the change to the therapy parameter comprises receiving the change to the therapy parameter made by the user via a programming device.

Claim 13 (Previously Presented):   The method of claim 12, wherein the implantable medical device includes an implantable neurostimulator, and receiving the change to the therapy parameter comprises receiving a change to at least one of a pulse amplitude, a pulse width, or a pulse rate of stimulation energy delivered by the neurostimulator.

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Claim 14 (Previously Presented):   The method of claim 8, wherein recording the value of the parameter comprises receiving the value of the parameter and a time from a user, and providing therapy to a patient according to the therapy information comprises changing delivery of therapy at a time subsequent to detection of the event according to the value and time received from the user.

Claim 15 (Original): The method of claim 1, wherein providing therapy to a patient according to the therapy information comprises suspending delivery of therapy.

Claim 16 (Original): The method of claim 1, further comprising presenting the defined event to a clinician as diagnostic data.

Claim 17 (Original): The method of claim 16, wherein presenting the defined event to the clinician comprises presenting the defined event as a marker within a timing diagram.

Claim 18 (Previously Presented): The method of claim 1, further comprising receiving a command from a user to enter a learning mode in order to define the event and record and associate therapy information with the defined event, wherein the user is one of a clinician or the patient.

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Claim 19 (Currently Amended):   A medical device comprising:

a sensor that generates an output as a function of a physiological parameter of a patient;

a therapy delivery module that delivers therapy to a patient;

a memory; and

a processor that:

monitors the output of the sensor;

initially defines an event based on the monitoring of the sensor output by storing an indication of the monitored sensor output within the memory as the defined event;

monitors therapy delivered by the therapy delivery module during occurrence of the defined event;

generates therapy information based on the monitoring of the therapy;

associates the therapy information with the defined event within the memory;

subsequently detects the defined event by monitoring the output of the sensor and comparing the sensor output to the defined event; and

automatically controls delivery of therapy to the patient by the therapy delivery module according to the therapy information associated with the defined event in response to the detection.

Claims 20-22 (Cancelled).

Claim 23 (Previously Presented):   The medical device of claim 19, wherein the sensor output reflects at least one of motion or posture of the patient.

Claim 24 (Previously Presented):   The medical device of claim 19, wherein the sensor comprises an accelerometer.

Claim 25 (Original): The medical device of claim 24, wherein the accelerometer comprises a multi-axis accelerometer.

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Claim 26 (Previously Presented): The medical device of claim 19, wherein the processor defines the event by storing a recording of the sensor output over a period of time within the memory.

Claim 27 (Previously Presented): The medical device of claim 19, wherein the therapy information comprises a value of a parameter that controls delivery of therapy to the patient, and the processor associates the value and the defined event within the memory.

Claim 28 (Previously Presented): The medical device of claim 27, wherein the therapy information reflects a change to the parameter made by a user, and the processor records the change and associates the recorded change with the defined event within the memory.

Claim 29 (Previously Presented): The medical device of claim 28, wherein the therapy information reflects changes to the parameter made by the user over a period of time, and the processor records the changes over the period of time and associates the recorded changes with the defined event within the memory.

Claim 30 (Previously Presented): The medical device of claim 29, wherein the processor changes the therapy parameter at a time subsequent to detection of the event according to the recorded changes to the therapy parameter.

Claim 31 (Original): The medical device of claim 27, wherein the processor receives the value of the parameter and a time from a user via a user interface, and changes delivery of therapy at a time subsequent to detection of the event according to the value and time received from the user.

Claim 32 (Original): The medical device of claim 19, wherein the processor stores the defined event within the memory as diagnostic data for presentation to a clinician.

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Claim 33 (Previously Presented): The medical device of claim 32, further comprising a user interface, wherein the processor presents the defined event to the clinician as a marker within a timing diagram via the user interface.

Claim 34 (Previously Presented): The medical device of claim 19, wherein the processor suspends delivery of therapy in response to the detection of the previously defined event.

Claim 35 (Previously Presented): The medical device of claim 19, wherein the medical device comprises an implantable neurostimulator.

Claim 36 (Previously Presented): The medical device of claim 19, wherein the medical device comprises a programming device that communicates with an implantable medical device.

Claim 37 (Previously Presented): The medical device of claim 19, wherein the processor receives a command from a user to enter a learning mode in order to define the event and record and associate therapy information with the defined event, and wherein the user comprises one of a clinician or the patient.

Claim 38 (Currently Amended):   A computer-readable medium comprising instructions that cause a programmable processor to:

monitor an output of a sensor, the output of the sensor reflecting a physiological parameter of a patient;

initially define an event based on the monitoring of the sensor output, wherein the instructions that cause the programmable processor to initially define the event comprise instructions that cause the programmable processor to store an indication of the monitored sensor output within a memory as the defined event;

monitor therapy delivered by a medical device during occurrence of the defined event;

generate therapy information based on the monitoring of the therapy;

associate the therapy information with the defined event within the memory;

subsequently detect the defined event by monitoring the output of the sensor and comparing the sensor output to the defined event; and

automatically control delivery of therapy to the patient via the medical device according to the therapy information associated with the defined event in response to the detection.

Claims 39-41 (Cancelled).

Claim 42 (Previously Presented):   The computer-readable medium of claim 38, wherein the instructions that cause the programmable processor to define the event based on the monitoring of the sensor output comprise instructions that cause the programmable processor to record the sensor output over a period of time.

Claim 43 (Previously Presented):   The computer-readable medium of claim 38, wherein the instructions that cause the programmable processor to generate therapy information comprise instructions that cause the processor to record a value of a parameter that controls delivery of therapy by the therapy device.

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Claim 44 (Previously Presented):   The computer-readable medium of claim 43, wherein the instructions that cause the programmable processor to record a value of a therapy parameter comprises instructions that cause the programmable processor to record a change to the parameter made by the user.

Claim 45 (Previously Presented):   The computer-readable medium of claim 44, wherein the instructions that cause the programmable processor to record a change to the parameter comprises instructions that cause the programmable processor to record changes to the therapy parameter made by the user over a period of time.

Claim 46 (Previously Presented):   The computer-readable medium of claim 45, wherein the instructions that cause the programmable processor to provide therapy to a patient according to the therapy information comprise instructions that cause the programmable processor to change the therapy parameter at a time subsequent to detection of the event according to the recorded changes to the therapy parameter.

Claim 47 (Previously Presented):   The computer-readable medium of claim 43, wherein the instructions that cause the programmable processor to record a value of a parameter comprise instructions that cause the programmable processor to receive the value of the parameter and a time from the user, and the instructions that cause the programmable processor to provide therapy to a patient according to the therapy information comprise instructions that cause the programmable processor to change delivery of therapy at a time subsequent to detection of the event according to the value and time received from the user.

Claim 48 (Previously Presented):   The computer-readable medium of claim 38, wherein the instructions cause the processor to receive a command from a user to enter a learning mode in order to define the event and record and associate therapy information with the defined event, and wherein the user is one of a clinician or the patient.

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Claim 49 (Previously Presented): The method of claim 1, further comprising receiving a command from a user to enter a learning mode in order to define the event and associate the therapy information with the defined event.

Claim 50 (Previously Presented): The method of claim 1, wherein providing therapy comprises managing pain in the patient.

Claim 51 (Previously Presented): The medical device of claim 19, further comprising a user interface, wherein the processor receives a command to enter a learning mode from a user via the user interface in order to define the event and associate the therapy information with the defined event.

Claim 52 (Previously Presented): The medical device of claim 19, further comprising a pulse generator that is controlled by the processor to deliver pain management therapy to the patient.

Claim 53 (Previously Presented): The computer readable medium of claim 38, wherein the instructions cause the processor to receive a command from a user to enter a learning mode in order to define the event and associate the therapy information with the defined event.

Claim 54 (Previously Presented): The computer readable medium of claim 38, wherein the instructions that cause the processor to provide therapy comprise instructions that cause the processor to control a pulse generator to deliver pain management therapy to the patient.

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Claim 55 (Currently Amended): The method of claim 1, further comprising performing each of the following by the medical device:

monitoring the output of the sensor;

initially defining the event based on the monitoring of the sensor output, wherein initially defining the event comprises storing an indication of the monitored sensor output within a memory as the defined event;

monitoring therapy delivered by the medical device during occurrence of the defined event;

generating therapy information based on the monitoring of the therapy;

associating the therapy information with the defined event within the memory;

subsequently detecting the defined event; and

providing therapy to the patient via the medical device according to the therapy information in response to the detection.

Claim 56 (Currently Amended): A method comprising:

monitoring an output of a sensor, the output of the sensor reflecting a posture of a patient;

initially defining a posture event based on the monitoring of the sensor output, wherein initially defining the posture event comprises storing an indication of the monitored sensor output within a memory as the defined posture event;

monitoring therapy delivered by a medical device during occurrence of the defined posture event;

generating therapy information based on the monitoring of the therapy;

associating the therapy information with the defined event within the memory;

subsequently detecting the defined posture event by monitoring the output of the sensor and comparing the sensor output to the defined event; and

providing therapy to the patient via the medical device according to the therapy information in response to the detection.

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